

Date: Wed, 23 Jun 93 04:00:51 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #767
To: Info-Hams

Info-Hams Digest Wed, 23 Jun 93 Volume 93 : Issue 767

Today's Topics:

 9913 Coax
 [ANS] Wanted: Simple,Cheap,2m antenna project
 ARRL Bulletin 63 ARLB063
 ARRL Bulletin 64 ARLB064
 Daily Solar Geophysical Data Broadcast for 22 June
 DX Bulletin 31 ARLD031
 DX Bulletin 32 ARLD032
 Handheld 2 meter Question
 Poor Operating Practice By 5A0RR
 Problems with Morse code tutor
 Propagation Forecast Bulletin 24 ARLP024
 Scanners (Advice Inquired)
 STS-57 Update/President's Crew Conference

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: Wed, 23 Jun 1993 05:15:21 GMT
From: sdd.hp.com!col.hp.com!news.dtc.hp.com!srngenprp!glenne@network.UCSD.EDU
Subject: 9913 Coax
To: info-hams@ucsd.edu

Cecil A Moore (Cecil_A_Moore@ccm.hf.INTel.COM) wrote:

: Sorry, guys, for the confusion. I had a misplaced modifier. What I
: really meant to ask was, "Which is correct, 2.3 db loss at 330 MHz or
: 3 db loss at 330 MHz?" As it turns out, the ARRL handbook is correct

: and the loss at 330 MHz is closer to 2 db than to 3 db.

Cecil,

Now that the confusion is clarified I'll muddy it slightly again.

Watch out that the cable you have really does show smooth and monotonic loss versus frequency. The last 250' roll of 9913 I bought had a problem: It showed several rather deep and narrow loss spikes when I carefully swept it over .3MHz - 3 GHz. I don't have the plot in front of me but I remember an *additional* 2-3 dB at about 290 MHz! I investigated it and determined the problem to be due to periodic imperfections across the length of the cable. Any one of these alone was small and hard to see, even in a time domain analysis with error correction applied, but the total effect was very significant. As you might expect, the spikes showed up at multiples of the lowest frequency but the normal cable loss tended to swamp out the effect at higher frequencies.

I landlined with an applications person at Belden and FAXed plots of the problem along with my complaint but didn't get any help except his admission that they normally only do spot frequency tests and don't sweep cable to reveal that kind of problem.

I determined that the problem was at manufacture time and not just an effect of some kind of damage of my particular roll by seeing that the periodicity was not related to the turn size on my roll. I guess the bottom line is measure before you use if you are truly concerned. You may not get what either the manufacturer or any on the standard references suggest.

73,

Glenn Elmore n6gn

N6GN @ K3MC

amateur IP: glenn@SantaRosa.ampr.org

Internet: glenne@sr.hp.com

Date: Tue, 22 Jun 1993 15:33:15 GMT
From: valinor.mythical.com!n5ial!jim@uunet.uu.net
Subject: [ANS] Wanted: Simple, Cheap, 2m antenna project
To: info-hams@ucsd.edu

In article <1993Jun21.141738.8573@porthos.cc.bellcore.com>
whs70@dancer.cc.bellcore.com (sohl, william h) writes:

>About 2 or 3 months ago, QST had a do-it-yourself construction
>article for a three element 2m beam, total cost of materials
>was about \$8 plus the cost of Coax. It used brass rod (or welding
>rods) and PVC pipe.

Above the PVC pipe...I know PVC is a Bad Thing at HF, but what about VHF?
Can you really get good results with it there? Or would a wooden dowel
(see my post from yesterday on this) be a better thing to use?

Also, now that rec.radio.amateur.antenna is up and running (YES!!!),
should we perhaps migrate over there with this? Just a thought.

--jim

--

#include <std_disclaimer.h>

73 DE N5IAL (/4)

INTERNET: jim@n5ial.mythical.com | j.graham@ieee.org ICBM: 30.23N 86.32W
AMATEUR RADIO: (packet station temporarily offline) AMTOR SELCAL: NIAL

E-mail me for information about KAMterm (host mode for Kantronics TNCs).

Date: Tue, 22 Jun 93 23:41:51 GMT
From: usc!math.ohio-state.edu!magnus.acs.ohio-state.edu!cis.ohio-state.edu!mstar!
n8emr!bulletin@network.UCSD.EDU
Subject: ARRL Bulletin 63 ARLB063
To: info-hams@ucsd.edu

=====
| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====

ZCZC AG05
QST de W1AW
ARRL Bulletin 63 ARLB063
>From ARRL Headquarters Newington CT
June 16, 1993
Relayed by KB8NW/OBS & BARF-80 BBS
To all radio amateurs

SB QST ARL ARLB063
ARRLB063 FCC call sign update

FCC ISSUED CALL SIGN UPDATE

The following is a list of the FCC's most recently issued call signs as of June 1.

District	Group A Extra	Group B Advanced	Group C Tech/Gen	Group D Novice
0	AA0NG	KG0GE	N0XC0	KB0LGZ
1	AA1GS	KD1PE	N1PGU	KB1AXJ
2	AA2NZ	KF2PE	N2VAX	KB2QGL
3	AA3ER	KE3II	N3PEV	KB3AUP
4	AD4ES	KQ4VO	++	KE4BWU
5	AB5NQ	KJ5MN	++	KC5AWV
6	AB6TV	KN6MM	++	KD6WHW
7	AA7WF	KI7NO	++	KB7VBN
8	AA8LI	KG8BM	N8YVY	KB8OZJ
9	AA9HG	KF9PN	N9TRQ	KB9IQE
Hawaii	++	AH6MS	WH6MR	WH6CQN
Alaska	++	AL7OY	WL7KU	WL7CHB
Puerto Rico	++	KP4VI	++	WP4MAP

++All call signs in this group have been issued in this area.
NNNN

Date: Tue, 22 Jun 93 23:41:51 GMT
From: usc!math.ohio-state.edu!magnus.acs.ohio-state.edu!cis.ohio-state.edu!mstar!
n8emr!bulletin@network.UCSD.EDU
Subject: ARRL Bulletin 64 ARLB064
To: info-hams@ucsd.edu

=====
| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====

ZCZC AG06
QST de W1AW
ARRL Bulletin 64 ARLB064
>From ARRL Headquarters Newington CT
June 17, 1993
Relayed by KB8NW/OBS & BARF-80 BBS
To all radio amateurs

SB QST ARL ARLB064
ARLB064 W0AIB appointment

Larry Staples, W0AIB, of Shawnee Mission, Kansas, has been appointed

to serve as Vice Director of the Midwest Division, ARRL, until
January 1, 1994. WOAIB fills the vacancy created when Bill
McGrannahan, K0ORB, became director of the division upon the
resignation and subsequent death of Paul Grauer, W0FIR.
NNNN

Date: 23 Jun 93 05:13:14 GMT
From: news-mail-gateway@ucsd.edu
Subject: Daily Solar Geophysical Data Broadcast for 22 June
To: info-hams@ucsd.edu

!!BEGIN!! (1.0) S.T.D. Solar Geophysical Data Broadcast for DAY 173, 06/22/93
10.7 FLUX=096.6 90-AVG=113 SSN=045 BKI=0011 0003 BAI=002
BGND-XRAY=B1.4 FLU1=4.4E+05 FLU10=1.2E+04 PKI=1011 1233 PAI=006
BOU-DEV=004,004,006,009,004,004,004,035 DEV-AVG=008 NT SWF=00:000
XRAY-MAX= C1.5 @ 1329UT XRAY-MIN= B1.3 @ 1635UT XRAY-AVG= B1.8
NEUTN-MAX= +003% @ 2055UT NEUTN-MIN= -001% @ 2345UT NEUTN-AVG= +0.7%
PCA-MAX= +0.2DB @ 2310UT PCA-MIN= -0.4DB @ 1620UT PCA-AVG= +0.0DB
BOUTF-MAX=55376NT @ 1343UT BOUTF-MIN=55328NT @ 1914UT BOUTF-AVG=55359NT
GOES7-MAX=P:+000NT@ 0000UT GOES7-MIN=N:+000NT@ 0000UT G7-AVG=+084,+000,+000
GOES6-MAX=P:+136NT@ 1632UT GOES6-MIN=N:-078NT@ 2359UT G6-AVG=+106,-016,-044
FLUXFCST=STD:105,110,120;SESC:105,110,120 BAI/PAI-FCST=010,020,010/015,018,010
KFCST=1111 1111 3333 3333 27DAY-AP=004,018 27DAY-KP=1111 1213 2453 3233
WARNINGS=*SWF
ALERTS=
!!END-DATA!!

NOTE: The Effective Sunspot Number for 21 JUN 93 was 63.0.
The Full Kp Indices for 21 JUN 93 are: 1- 0o 1o 1- 1+ 2o 2o 2o

Date: Tue, 22 Jun 93 23:41:48 GMT
From: usc!math.ohio-state.edu!magnus.acs.ohio-state.edu!cis.ohio-state.edu!mstar!
n8emr!bulletin@network.UCSD.EDU
Subject: DX Bulletin 31 ARLD031
To: info-hams@ucsd.edu

=====
| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====

ZCZC AE57
QST de W1AW
DX Bulletin 31 ARLD031

>From ARRL Headquarters Newington CT
June 17, 1993
Relayed by KB8NW/OBS & BARF-80 BBS
To all radio amateurs

SB DX ARL ARLD031
ARLD031 DX news

Thanks to Chris, KD3OA; Karl, PS7KM; Bob, W5KNE; and QRZ DX for the items in this week's bulletin.

SAINT PETER AND PAUL ROCKS. The NATAL DX Group, a Brazilian organization, plans to be 'on the rocks' for three weeks starting sometime in January or February 1994. This may turn out to be the first time PY0S is available on packet and satellite. PY0SK and PY0SP will be manned by four operators running the two stations nearly full time. Plans call for CW, RTTY, SSB, packet and satellite modes. QSL SSB, RTTY, 6M, packet and satellite via PS7KM. QSL via PT7WA for only HF CW contacts.

DODECANESE. Look for N6MZ on OSCAR 13. He is sailing the Aegean Sea and will be visiting SV5QR June 19, 20 and July 4. This may be the first time SV5 has been active on satellite.

FRENCH POLYNESIA. JA8GMZ, JH8FMK, JR8FEK and others will operate from Tahiti for one week starting June 22. Look for them on 160 through 6 meters with CW and ssb.

MARION ISLAND. The operator signing ZS8MI is Christie, ZA1CDK, Check 14130 and 14168 kHz. Christie sometimes checks into the net on 21205 kHz at around 0500z.

LIBYA. Strong signals from 5A0RR were heard Tuesday evening, Eastern time. Wednesday night was a no show and there has been no additional news received as this bulletin was being prepared late Thursday afternoon.

HEARD AND WORKED from the east coast recently include

4K1F	7002 kHz at 0547z
9K2MU	14001/0036
TA2DS	14016/0124
HL4YD	14030/1211
T20AA	14029/1106
V85AA	14004/1251
V85PB	14195/1047
9M8ZZ	14195/1429
9M8DB	14226/1334

5X1A 21313/1805 Bruno c/o POB 3316, Kampala
9K2ZZ 18121/1454
A92BE 21295/1927
ET3SID 21253/1812
ET3YU 21028/1508
TA2BD 21022/1651
TL8NG 21323/1941

THIS WEEKEND ON THE RADIO. The All Asia CW Contest sponsored by the Japan Amateur Radio League, JARL, starts June 19 at 0000z and runs 48 hours. The exchange is a signal report and two digit number representing the operator's age. For more information see page 117 of June QST.

The SMIRK 6 Meter QSO Party, a 48 hour event sponsored by the Six Meter International Radio Klub, starts at 0000z on June 19. Early 6 meter reports from last weekend's ARRL VHF contest indicate that the SMIRK contest could be just the thing for those who didn't get enough of the good conditions a week ago. For contest details, check page 117 of June QST.

NNNN

Date: Tue, 22 Jun 93 23:41:40 GMT
From: usc!math.ohio-state.edu!magnus.acs.ohio-state.edu!cis.ohio-state.edu!mstar!
n8emr!bulletin@network.UCSD.EDU
Subject: DX Bulletin 32 ARLD032
To: info-hams@ucsd.edu

=====
| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====

ZCZC AE58
QST de W1AW
DX Bulletin 32 ARLD032
>From ARRL Headquarters Newington CT
June 18, 1993
Relayed by KB8NW/OBS & BARF-80 BBS
To all radio amateurs

SB DX ARL ARLD032
ARLD032 E35X wrap up

NORWEGIAN DXPEDITION TO ASMARA, ERITREA MAY 31 - JUNE 9 1993

The following from Erling Wiig, LA6VM, was received at ARRL HQ today:

The DXpedition was warmly received in Eritrea and its objectives were achieved.

- Introductory seminars held at the Telecom Authority of Eritrea and at Asmara Technical School.
- Asmara Technical School Radio Club was started with elected chairman and 26 members.
- Code training is in progress.
- A complete station, including Icom IC-751A, IC-2KL, IC-AT500, a Mosley TA33 and dipoles was set up at the radio club.

A three day seminar was held at the Telecom office, with about 15 participants. A four day seminar was held at the Asmara Technical School, with about 35 participants. The technical literature -- about 15 ARRL manuals and 20 sets of lecture notes -- represents the first updating of technical literature at the school in decades. The radio equipment replaces 40-50 years old nonworking equipment. Amateur radio is now being used in the lectures to visualize and to give hands-on demonstration of electronics and communication theory. Code training classes continue with the provided training tapes, cassette players and keys. The setting up of the club station was attended by over 100 persons and was covered by the Eritrean press, radio and TV.

The expedition started at 1830z June 1 with the assigned callsign E35X. The operation closed June 9 at 0620z. about 20,000 QSOs were made with about 125 countries. The operation took place mainly on 10, 15 and 20 meter SSB and CW with some contacts on 40, 80, and 160 meters and on RTTY. Operators were LA1EE, LA6VM, LA9DL, JF1IST. In addition, Eritrean hams-to-be participated in the operation, marking the start of amateur radio in the independent Eritrea.

QSL via LA6ZH, Ruth Tollefsen, PO Box 17 Tveita, N-0617 Oslo, Norway, one card per QSO please. Cards will not be ready for 6 to 8 weeks. Cards received direct will be returned direct provided an SASE and sufficient postage is included.
NNNN

Date: Tue, 22 Jun 1993 15:11:41 GMT
From: sdd.hp.com!spool.mu.edu!darwin.sura.net!knuth.mtsu.edu!raider!theporch!
jackatak!root@network.UCSD.EDU
Subject: Handheld 2 meter Question
To: info-hams@ucsd.edu


```
> I interested in getting into a handheld 2meter unit
                ^^^^^^^^ ^^^^^ ^ ^^^^^^^^^^^ ^^^^^^^ ^^^^^
```

Maybe the guys at HRO or whatever would be able to show you something in a 38 regular... ;^)

73
Jack

```
+-----+
| Jack GF Hill          |Voice: (615) 459-2636 -           Ham Call: W4PPT |
| P. O. Box 1685        |Modem: (615) 377-5980 -   Bicycling and SCUBA Diving |
| Brentwood, TN 37024  |Fax:   (615) 459-0038 -           Life Member - ARRL |
| root@jackatak.raider.net - "Plus ca chnagez, plus ca la meme chose" |
+-----+
```

So I build a rocket in my back yard, emigrate to the moon, and issue myself what must be THE most attractive DX callsign (for a while at least).

There's obviously going to be a lot of response, but if folk call on frequencies not already in use, I can tune around and pick them out at random. That seems fair and about the best I can do.

I think we need to not lose sight of the difference between someone, perhaps foolish enough to appear on a band and suggest he is listening

over a wide range, and those stupid enough to trample everything flat.

Who is the stupid one ? the one who suggests bear wrestling, or the one who tries it ?

Cheers

David

Date: 22 Jun 93 22:48:22 -0600
From: swrinde!gatech!news-feed-1.peachnet.edu!umn.edu!msus1.msus.edu!
TIGGER.STCLOUD.MSUS.EDU!KYLESM@network.UCSD.EDU
Subject: Problems with Morse code tutor
To: info-hams@ucsd.edu

In article <C91K2B.6qH@dartvax.dartmouth.edu>, Daniel.W.Collison@dartmouth.edu
(Daniel W. Collison) writes:
>In article <1993Jun21.220550.4098@msus1.msus.edu>
>kylesm@TIGGER.STCLOUD.MSUS.EDU (Kyle Smith) writes:
>
>> "MorseTrainer US-1.0.1b20
>> I think the US version is also available at 130.235.20.3, but I am not sure if
>> that's the address I got it from. Anyway, it works great on my vx.
>
>The correct ftp address is 130.235.32.86; only the Swedish version is
>at the other ftp site.
>
>-Dan, N1PNE

I stand corrected! Thank you!

73, Kyle

Date: Tue, 22 Jun 93 23:41:40 GMT
From: usc!math.ohio-state.edu!magnus.acs.ohio-state.edu!cis.ohio-state.edu!mstar!
n8emr!bulletin@network.UCSD.EDU
Subject: Propagation Forecast Bulletin 24 ARLP024
To: info-hams@ucsd.edu

=====
| Automatic relayed from packet radio via |
| N8EMR's Ham BBS, 614-895-2553 |
=====

ZCZC AP85
QST de W1AW
Propagation Forecast Bulletin 24 ARLP024
>From Tad Cook, KT7H, Seattle, WA
June 18, 1993
Relayed by KB8NW/OBS & BARF-80 BBS
To all radio amateurs

SB PROP ARL ARLP024
ARLP024 Propagation de KT7H

Solar activity continued to decline last week. Sunspot numbers went as low as 11 and flux went down to the low eighties. There were almost no visible sunspots.

Solar flux will begin rising after this weekend and should reach a modest peak near 120 around the end of the month. This next activity is expected from returning region 7518. Geomagnetic activity should be mostly quiet but there could be some upsets around the first of July, and again around July 7.

Sunspot Numbers from June 10 through June 16 were 61, 44, 33, 24, 11, 11 and 11, with a mean of 27.9. 10.7 cm flux was 112.6, 101.8, 93.3, 86.6, 83.7, 82 and 82.3, with a mean of 91.8.

The projection for this week is from Omaha, Nebraska to Libya. 80 meters should be open from 0130 to 0400z, peaking around 0230. 40 meters should be open from 0000 to 0530z, peaking from 0230 to 0400. 30 meters should be open from 2300 to 0600z, peaking from 0100 to 0430. 20 meters should be open from 2200 to 0630z, with the best times from 0000 to 0500. 17 meters should be open most days from 1730 to 2300z. Due to low solar activity, 10, 12 and 15 meters do not look promising over this path.

NNNN

Date: Tue, 22 Jun 1993 23:52:14 GMT
From: ftpbox!mothost!white!rtsg.mot.com!corolla24!thweatt@uunet.uu.net
Subject: Scanners (Advice Inquired)
To: info-hams@ucsd.edu

I am interested in buying a scanner. I have been looking at the IC-R100 and started to look at the AR-2500. The purpose of this scanner is to allow me to get acquainted with the frequency spectrum. I was interested in a scanner which will open up the whole spectrum for me for around \$500. This is why I have been looking at these two scanners.

I found out that the IC-R100 has only around 100 or so memory channels and a scan rate of about 10 channels per second. It looks like a good radio but I don't like these drawbacks .

I was also interested in the AR-2500 this has RS-232 control and covers about .5 - 1300 MHZ with a small section of the band taken out between 600 - 805 MHZ (UHF TV). But a dealer said that he stopped selling these radios since the squelch and BFO would go bad on them and people started sending them back. (Galaxy 216-376-2402)

I also looked into the Bearcat scanners, but they looked like they were not continuous scan and I had some doubts the quality??? Also I would like to get short wave also. A dealer said he could modify this scanner for me which would open the frequency range up for me. I did like the 100 channels per second feature.

I am open to ideas.

Does anyone, on this net, have any experience with one of these scanners or any advice which could help me in my decision.

Thanks,
John Thweatt

Date: 23 Jun 93 03:30:37 GMT
From: news-mail-gateway@ucsd.edu
Subject: STS-57 Update/President's Crew Conference
To: info-hams@ucsd.edu

SB SAREX @ AMSAT \$STS-57.006
SAREX Update/President's Crew Conference

The Shuttle Amateur Radio Experiment (SAREX) is activated and fully operational on the Space Shuttle Endeavour. The initial engineering contact with W5RRR went well. Pilot Brian Duffy's (N5WQW) family were on hand at the JSC ARC during the pass. In fact, Duffy's son Shaun, KB5SIY, initiated the contact for the engineering checkout.

Two orbits later, the students at the Mitchell Elementary School in Houston

had an outstanding, crystal clear contact with 11 students asking questions.

The school contact with the Lawrence Hall of Science and Malcolm-X Intermediate School had limited success today on the following orbit with 2 students asking questions. An unfavorable Shuttle attitude limited SAREX success during this pass.

SAREX and amateur radio, in general, received a big boost today when President Clinton had a telephone conference with the STS-57 crew. During his address to the astronauts, President Clinton commended the astronauts, the SAREX team and the amateur radio community for their outstanding support to students around the world. Clinton said "I understand that later in the mission Janice (Voss) and Brian (Duffy) are going to be talking with school children around the world." He continued "But I want to tell you how much I appreciate the fact that you're making an international education project out of this mission. That's very important to me." Pilot Brian Duffy responded "Mr. President, we find that using amateur radio is an excellent way of communicating with children all around the world, and we're also able to excite them by using space and science. And letting them see space and science in action, we're able to excite them and hope they'll study harder." The President finished, "You have no idea -- you may be on this mission creating thousands of scientists for the future just by the power of your example and by this direct communication. I think sometimes we underestimate the impact that human contact in an enormously impressive setting like this can have on children all across the world--not only those with whom you'll talk, but millions of others who will just see it and know that it happened"

Submitted by Frank H. Bauer for the SAREX Working Group

/EX

Date: 22 Jun 1993 22:48:02 GMT
From: topaz.bds.com!topaz.bds.com!ron@uunet.uu.net
To: info-hams@ucsd.edu

References <C8zzyu.4zC@ucdavis.edu>, <1993Jun22.153924.27214@ke4zv.uucp>,
<C91Muo.KrC@ucdavis.edu>
Subject : Re: Broadcast IDs

> If CBS didn't have a KCBS-TV could they prevent someone else from getting it?

Nothing. There was a small amount of controversy when Gannet (USA Today People) licensed their DC station as WUSA between them and the USA Network people.

-Ron

Date: Tue, 22 Jun 1993 15:44:33 GMT
From: valinor.mythical.com!n5ial!jim@uunet.uu.net
To: info-hams@ucsd.edu

References <9306192035.AA01270@ucsd.edu>, <1993Jun21.123648.21165@ke4zv.uucp>,
<204ep8INNajo@rave.larc.nasa.gov>
Subject : Re: TV vs Cable. Why Pay for a FREE Signal

In article <204ep8INNajo@rave.larc.nasa.gov> kludge@grissom.larc.nasa.gov
(Scott Dorsey) writes:

>Why bother paying for cable TV?

Around here, if you want to watch anything on TV at all (other than videotapes), you either have cable or a satellite dish....That, or you live in one of those areas where you actually can pick up a marginal signal with a good outdoor TV antenna on a tower. There are no local TV stations in Ft. Walton. Of course, the cable company sent us the same blurb about how they will not carry any of the local channels (e.g., Pensacola, Panama City, Dothan, etc.) if they want money. Too bad for those of us who live in apartments, etc....

Of course, as long as they don't touch the channels that ST:DS9 and ST:TNG are on, or PBS, I won't complain. If they touch any of those, however, they're going to catch all kinds of hell from me.

--jim

--

#include <std_disclaimer.h>

73 DE N5IAL (/4)

INTERNET: jim@n5ial.mythical.com | j.graham@ieee.org ICBM: 30.23N 86.32W
AMATEUR RADIO: (packet station temporarily offline) AMTOR SELCAL: NIAL

E-mail me for information about KAMterm (host mode for Kantronics TNCs).

End of Info-Hams Digest V93 #767
